



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

A letter was read from H. Meigs, Esq., Secretary of the local committee of the Association of American Geologists and Naturalists, dated New York, June 5, 1846, transmitting a number of printed circulars of that Association for distribution among the members of the Academy.

A letter from M. Alex. Moreau de Jonnés was read, accompanying his works presented this evening.

Mr. Haldeman read a description of *Unio abacoides*, a new species, which being intended for publication, was referred to a committee consisting of Dr. Hallowell, Mr. Phillips and Mr. Conrad.

Mr. Fisher made some remarks on the comparative rapidity of growth of plants at different periods of their existence.

Dr. Leidy exhibited recent leaves of the common Elm, (*Ulmus fulva*,) each having on the upper surface several large pyriform excrescences, which were hollow and impervious, and contained multitudes of Aphides in different stages of development, from the larva to the perfect insect.

Dr. Morton made some observations on the occasional union or continuation of the spheno-temporal and coronal sutures in the human subject. He finds it frequent in the Negro, occasional in the Hindoo, Egyptian and aboriginal American, but has found no instances of it in the European. He proposes to continue his observations, and to present the precise results at a future meeting of the Society.

Dr. Morton also exhibited casts of some remarkable human effigies, and other relics taken from Indian mounds in the vicinity of Chillicothe, Ohio, by Dr. Davis and Mr. Squier, of that city.

---

*Meeting for Business, June 30, 1846.*

VICE PRESIDENT WETHERILL in the Chair.

The Committee on Dr. Leidy's paper on the Anatomy of *Bradypus tridactylus*, reported in favor of publication.

*Remarks upon the Anatomy of the Abdominal Viscera of the Sloth, Bradypus tridactylus, Linn.*

By JOSEPH LEIDY, M. D.

A living specimen of the three-toed sloth, which was lately brought to this city from South America, having died a short time since, I have been enabled, through the kindness of Mr. Wood, preparer of specimens in natural history, to procure the greater part of the abdominal viscera and the uterus.

Descriptions of the anatomy of this animal have been given by several authors, but unfortunately not without a great deal of discrepancy in the statement of the simplest matters of fact, which I cannot account for in any other way than by suspecting several species to have been indiscriminately described as the same. Such cases of discrepancy are by no means unfrequent in Zootomy, arising, no doubt, in many cases, from the too exclusive attention in the preparation and preservation of the exterior, to the careless examination, or even total neglect of the interior.

Regretting exceedingly that I have not been able to extend my observations to the whole anatomy of the animal, I must be content to give a few cursory remarks upon the material obtained, which I proceed to do at once.

The stomach, according to Cuvier, in his *Regne Animal*, Tome I. p. 217, "is divided into four sacks analogous enough to the four stomachs of the ruminantia, but without folds or other salient parts in the interior." Dr. Harlan,\* in his account of the anatomy of this animal, writes, "the stomach consists of a large paunch, in no way furnished with compartments like that of the ruminantia, as is asserted by Buffon, who also errs in attributing ruminating faculties to the animal; but this organ presents a structure differing from that of any other animal with which we are familiar, being furnished with numerous, long, conical cul-de-sacs."

The specimen of the stomach which I have investigated agrees with the account, so far as it goes, of Cuvier. Taken as a whole, this organ is irregular in shape, large, capacious, and sacculated. It is evidently divided into four compartments, or distinct portions, by contractions, partitions, and difference of structure. The first compartment is the largest and corresponds to the paunch of the ruminantia; it is separated from the second compartment by a well marked and prominent ridge, is lined by a soft mucous membrane, having in it numerous follicles of a large size, is, comparatively with the other portions, thin in its parietes, and has projecting upwards from it, possessing the same structure, a "long, conical cul-de-sac," the only one found in connection with the stomach in this specimen. The second and third compartments are next in size, and are separated from each other by a partition of the same structure projecting from each side of the cavity of the organ. The œsophagus opens into the second compartment, but as it was cut off close to the stomach I am unable to say anything about it. The lining mucous membrane of these two latter compartments presents a rigid, rough and thick epithelia, surface resembling in

\*Observations on the Anatomy of the Sloth, *Bradypus tridactylus*, Linn. Medical and Physical Researches, p. 544. Philadelphia, 1835.

structure the cuticular lining of the gizzard of birds. A deep fold of the lining and intermediate or muscular membrane passes from the left of the opening of the œsophagus into the second compartment, transversely along the side of the third compartment into the fourth, being somewhat analogous to the arrangement in the ruminantia for conducting the ruminated food into the fourth stomach. The fourth compartment is narrow and intestiniform; the muscular tunic at its inferior half obtains a sudden increase, being extremely thick and strong. The internal surface at the commencement presents a patch of soft mucous membrane extending about two-thirds round the circumference of the cavity, and about an inch in width, and is surrounded by an abrupt, thickened, and papillated ridge of the epithelial structure, giving it somewhat the appearance of an excavated ulcer. The remaining part of the surface is formed of the same epithelial structure as in the second and third compartments, but is thicker, and is thrown into numerous transverse and longitudinal folds, and has at its commencement several large and deep follicles, with mouths from one to two lines in diameter. The pylorus is small, and presents no valvular arrangement, but is capable of being perfectly closed by the agency of the very thick muscular tunic and the approach of the internal longitudinal folds.

The duodenum comes off from the stomach by a very abrupt thinning in structure. Its lining mucous membrane is soft and villous, but has no valvulæ conniventes. The openings of the hepatic and pancreatic ducts into it are about one inch apart.

The other part of the small intestine is, comparatively, rather short, and appears to be pretty uniform in diameter, although it has a gradual increase downwards, being the reverse in this point in man and some other animals. The muscular coat of the small intestine is rather thin; the mucous coat presents a structure like that of the duodenum.

The distinction between the small intestine and colon is pretty well marked, but the latter does not extend beyond the former to a sufficient degree to form a cæcum. The commencement of the colon is about ten lines in diameter, but decreases as it passes forwards or ascends, until at its anterior part, the diameter is less than that of the small intestine; it gradually increases again as it descends, until it emerges in the extremely dilated rectum. It is not at all sacculated, which appears to have been otherwise the case in Dr. Harlan's specimen.

The liver is formed of large acini, is very little lobulated, and has no gall bladder.

The pancreas and spleen present nothing of interest.

The kidneys are small, and present internally but a single papilla renalis projecting into the pelvis of these organs.

The uterus in this individual is in a pregnant condition, being probably about four or six weeks advanced. Its size in this condition is a little more than one half that of the unimpregnated adult human uterus, and is pyriform in shape. The ovaries are about the size of a coffee-grain, and at one extremity are in contact with the uterus. The Fallopian tubes are correspondingly short. In structure the uterus is fibro-muscular; the cavity of the neck is lined by a mucous membrane thrown into numerous longitudinal folds. The cavity of the body contains a single embryo. The two portions of the membrana decidua, the reflexa and vera, are combined, forming a thickness of five

or six lines, and possesses a decided vascularity. The chorion is connected to the decidua by its shaggy surface, but an amnion is not distinguishable, being probably not yet formed.

Passing from the sides of the cavity of the chorion, is a delicate cellular tissue, filled with a transparent serous fluid, the corpus reticulare, in which the embryo is suspended by the duct of the allantois and vessels to the upper part of the chorion, at the point where the future placenta is formed. The embryo, in its curved position, measures six lines in length, and exhibits the cerebrum, cerebellum, chorda dorsalis, the rudimentary vertebræ, ribs, and extremities, and the heart, the liver, the stomach and urinary bladder.

Conceiving the pregnant uterus at this stage to be of more than ordinary interest, I present the following figures of the same as it appeared on dissection.

Fig. 1.

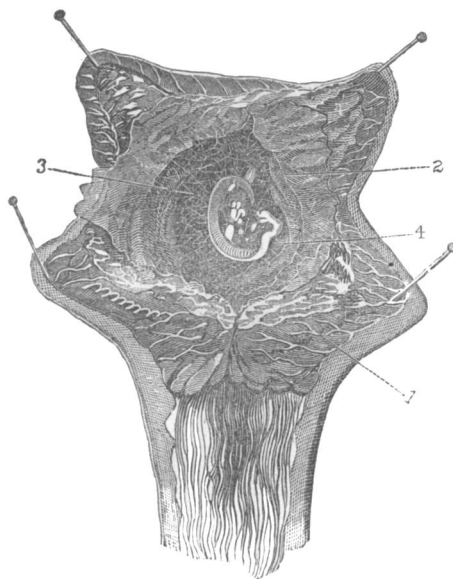


Fig. 1, Represents the uterus laid open, the size of nature, exhibiting: 1, The decidua; 2, The chorion; 3, The corpus reticulare; 4, The embryo.

Fig. 2.

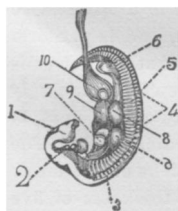


Fig. 2, Represents the embryo, twice the size of nature. 1, The cerebrum; 2, The cerebellum; 3, The chorda dorsalis; 4, The rudimentary vertebræ; 5, The ribs; 6, The extremities; 7, The heart; 8, The liver; 9, The stomach; 10, The urinary bladder.

The Committee on the following description of a new species of *Unio*, by Mr. Haldeman, read at last meeting, reported in favor of publication.

*Description of Unio abacoides, a new species.*

BY S. S. HALDEMAN.

Shell subovate, obtusely and regularly rounded posteriorly, disks approximate, chestnut brown and pale green, with green radiating interrupted capillary lines, and a tendency to form a submedial nodulous ridge: primary teeth robust, their inner margin nearly at right angles with the short lamellar teeth: pallial and muscular impressions well marked: nacre white, roseate posteriorly.

Length  $2\frac{5}{8}$ , height 2, diameter  $1\frac{1}{2}$  inches.

Allied to *U. dromas*, *Lea*, and *U. intermedius*, *Conrad*, but is proportionally longer than either. In its outline and small transverse diameter it resembles *U. abacus*. I am indebted for this interesting shell to the liberality of Dr. Foreman, who received it from Eastern Tennessee.

---

The Monthly Report of the Corresponding Secretary was read and adopted.

The Society then unanimously conferred a Life-Membership on Richard C. Taylor, Esq., of this city.

Dr. Morton offered the following:

Whereas, Dr. Thomas B. Wilson has purchased the magnificent collection of Birds called the *Rivoli collection*, now in Paris, embracing 10,000 specimens, mounted and named, and Dr. Wilson having expressed a wish that they should be arranged in the Hall of the Academy, and his fellow members warmly and cordially seconding his proposition, it is hereby

*Resolved*, That a committee of five members be appointed to devise such additions to the present building as may be necessary for this purpose, and to report a plan of the same to the Academy without delay.

The preamble and resolution were unanimously adopted, and the Committee appointed to consist of Dr. Morton, Mr. Vaux, Dr. Bridges, Mr. Pearsall and Dr. Wilson.